

REMARKS

Claims 1-82 are all the claims pending in the application. Applicants thank the Examiner for acknowledging Applicants' claim for foreign priority and receipt of the certified priority document. Applicants kindly request that the Examiner provide a signed Form 1449 indicating consideration of the references provided as part of the May 18, 2004 Information Disclosure Statement.

Applicants also kindly request that the Examiner acknowledge acceptance of the drawings in the next Office Action.

Claim Objections

Claims 44, 45, 47, 48, 50, 53, 55, 56, and 57 were objected to because of the term "the stream count" lacking antecedent basis. Further, claim 15 was objected to because in lines 9 and 10, "packets" is listed twice. Applicants have amended the claims to resolve these administrative matters. Applicants are of the understanding that claim 50 was incorrectly cited.

Claim Rejections - 35 USC § 102

Claims 1-17 and 42-58 stand rejected under 35 U.S.C. § 102 as being anticipated by Shirai et al. (U.S. Patent No. 5,912, 877), hereinafter "Shirai." Shirai is broadly related to a data exchange method that is used to reduce congestion in a communication network.

Regarding independent claims 1 and 42, the Examiner alleges that Shirai discloses the features recited in these claims, including, *inter alia*, a plurality of protocol terminating units and a destination determining processor, which comprises a path selecting section which determines a transfer destination route for a stream of packets received from any of said protocol terminating units. The Examiner cites Figure 1 and col. 7, lines 9 to 44 as disclosing these features.

Claim 1 recites “a path selecting section which determines a transfer destination route for each stream identifier of a stream of packets received from any of said protocol terminating units.” Similarly, claim 42 recites a method including “receiving a stream of packets; and determining a transfer destination route for each stream identifier of said received steam of packets.” For example, Figures 5 and 6 of the present application, as described on pages 69-71, show a transfer destination determining unit determining a destination route for the steam of packets received from protocol terminating units 2a...2n. In a non-limiting embodiment as shown in Figure 7, the transfer destination determining unit can include a header extracting section for extracting a destination IP address and then determining a transfer route based on this destination IP address. The header extracting section further extracts a stream identifier that is data for identifying gathered flows. A plurality of flows can be allocated to one stream identifier.

The present invention is related to transfer of data by packets as recited in the claims. In the present invention, a plurality of transfer paths may be available for transferring packets to the same destination IP address. By using the stream identifier (extracted by the header extracting section), packets belonging to the same flow can be transferred along the same transfer path by

determining the transfer path for each stream identifier. Accordingly, it is possible to ensure the order of packets as they arrive at the destination IP address. Indeed, this is beneficial, for example, in situations using Voice over Internet Protocol (VoIP) to reduce deterioration in the transmission quality of the data to the user. Thus, in the present invention, not only is consideration given to selecting routes that are not in the inhibition state, but there is also consideration placed on the order of transferring the packets.

Shirai uses a congestion status detecting means 6 to monitor a standard transit line 3 for congestion (the band of the transit line 3 is separated into the packet system and the frame relay system). When the transit line 3 becomes congested, data transfer is switched to a backup transit line. In Shirai, both a packet system and a frame relay system are disclosed (see col. 10, lines 38-41). Little is disclosed as to use of the Shirai packet system, while the major portion of the disclosure of Shirai discusses the Shirai data exchange method in the context of the frame relay system (cols. 13 et al.). In the frame relay system the packets undergo a frame relay format conversion (inserting the packets into a data portion of a frame relay). The destination address is determined by referring to the destination address of the packet (see col. 15, lines 32-37).

While both the packet system and frame relay system of Shirai rely on the destination address of the packet for transfer, there is no suggestion or consideration of a stream identifier (for the packets) in these systems (as claimed). That is, Shirai is silent with respect to keeping packets of a same stream in order. This silence would not be unexpected since an application, such as VoIP, that benefits from transferring the same stream of packets to a same transfer path was not introduced until approximately 1995, or one year after the date of filing of the Japanese

priority document of Shirai. Accordingly, for the reasons discussed above, amended claims 1 and 42, as well as the remaining claims that depend from these claims are allowable.

Claims 8-10 and 49-51 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shirai in view of Goldszmidt et al. (U.S. Patent No. 6,195,680) (hereinafter Goldszmidt).

Claims 8-10 and 49-51 distinguish over Shirai based on their dependency on claims 1 and 42, respectively. Goldszmidt does not make up for the deficiencies of Shirai since Goldszmidt relates to solving problems associated with client/server switching, and not to determining paths that the data takes between the client and the server.

The Examiner acknowledges that Shirai does not expressly disclose selecting another route based on monitoring for faults. However, the Examiner states that Goldszmidt discloses said path selecting section monitors whether or not a fault has occurred on said transfer destination route, and assigns a stream of packets allocated to said transfer destination route to said another transfer destination route when said fault has occurred on said transfer destination route. The Examiner refers to the Abstract of Goldszmidt as disclosing this feature. However, this citation to Goldszmidt discusses only a client selecting a different server when a fault occurs. There is no disclosure that the client selects the path (transfer destination route) for the data. Accordingly, claims 8-10 and 49-51 are allowable for this reason as well.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/752,461

Attorney Docket No. Q62569

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

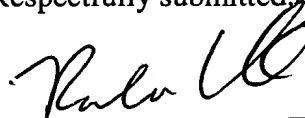
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Date: July 26, 2004